

What is claimed is:

1. A method for mitigating service outages in a digital broadcast system comprising the steps of:

receiving a first broadcast channel comprising program content from a source
5 data stream, data symbols in said source data stream being arranged in said first broadcast channel in accordance with a first interleaving pattern;

receiving a second broadcast channel, said second broadcast channel comprising substantially the same program content as said first broadcast channel, said data symbols being arranged in said second broadcast channel in accordance with a second interleaving
10 pattern, said first interleaving pattern and said second interleaving pattern being operable, respectively, to delay transmission of selected said data bytes in said first broadcast channel and said second broadcast channel with respect to corresponding said bytes in said second broadcast channel and said first broadcast channel by a period of time that is selected to reduce service outages; and

15 de-interleaving said data symbols in said first broadcast channel and said second broadcast channel using at least one data storage device that is adapted to delay said selected data symbols therein by a period of time corresponding to the transmission delays imposed on said data symbols in said first broadcast channel and said second broadcast channel by said first interleaving pattern and said second interleaving pattern,
20 respectively.

2. A method as claimed in claim 1, wherein said at least one data storage device comprises a buffer shift register.

25 3. A method as claimed in claim 1, further comprising the step of combining the de-interleaved said first broadcast data stream and said second broadcast data stream at each of said plurality of receivers to generate an output signal.

4. A method as claimed in claim 3, wherein said combining step employs Viterbi
30 decoding

5. A method as claimed in claim 3, further comprising the steps of:

receiving a third broadcast data stream comprising said program content transmitted via a terrestrial repeater station; and

combining the de-interleaved said first broadcast data stream and said second broadcast data stream and said third broadcast data stream to generate an output signal.

6. A method for mitigating service outages in a digital broadcast system comprising
5 the steps of:

transmitting a first broadcast channel comprising program content from a source data stream to a plurality of receivers, data symbols in said source data stream being arranged in said first broadcast channel in accordance with a first interleaving pattern; and

- 10 transmitting a second broadcast channel to said plurality of receivers, said second broadcast channel comprising substantially the same program content as said first broadcast channel, said data symbols being arranged in said second broadcast channel in accordance with a second interleaving pattern, said first interleaving pattern and said second interleaving pattern being operable, respectively, to delay transmission of selected
15 said data bytes in said first broadcast channel and said second broadcast channel with respect to corresponding said bytes in said second broadcast channel and said first broadcast channel by a period of time that is selected to reduce service outages.